ABSTRACT

A method of grinding the outer circumferential surface of a workpiece 5 formed of a hard and brittle material into a predetermined shape using a grinding wheel while rotating the workpiece 5 is disclosed. The method includes plunge grinding the workpiece 5 at an arbitrary portion (plunge ground portion 21) in the longitudinal direction of the workpiece 5 by causing the grinding wheel to come in contact with the workpiece 5 in a direction which intersects a rotational axis 8 of the workpiece 5, and traverse grinding the workpiece 5 toward the plunge ground portion 21 by moving the grinding wheel relative to the workpiece 5 in a direction parallel to the rotational axis 8 of the workpiece 5. This allows the outer circumferential surface of the workpiece made of a hard and brittle material, such as a honeycomb structure used for a DPF, to be ground into a predetermined shape in a short time, and prevents occurrence of chipping during grinding.